

NEW RECORDS OF VASCULAR PLANTS FOR OHIO
AND CUYAHOGA COUNTY, OHIO. PART II

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ABSTRACT. Twenty-one species and seven hybrids of vascular plants are listed as new records for Cuyahoga County, Ohio, and fourteen taxa of vascular plants, including two found outside of Cuyahoga County, constitute new Ohio records. One species is first reported for North America. Approximately 37 percent of the 30 taxa are native to the northeastern United States. Five species are designated by the Ohio Division of Natural Areas and Preserves as endangered, threatened, or added, collectively.

Key Words: Ohio, alien species, native species, new records, hybrids

This is the last of a series of papers listing species of vascular plants newly recognized within Ohio and Cuyahoga County, Ohio (Wilder and McCombs 1999, 2002). Cuyahoga County borders the south shore of Lake Erie and ranks among the northernmost of Ohio's 88 counties. Wilder and McCombs (1999) reported two Ohio records: *Hieracium* \times *flagellare* Willd. (a taxon previous workers had collected in Ohio, but had misidentified as *H. pilosella* L.) and *Rhamnus utilis* Decne. Wilder and McCombs (2002) reported 24 additional taxa as new for Ohio, and listed 222 species and 14 hybrids as new to Cuyahoga County. Wilder and McCombs (2002) also cited the recent floristic contributions of other workers and briefly characterized Cuyahoga County. We add to the citations, aforementioned, the accounts of Cooperrider et al. (2001) and Kartesz and Meacham (1999).

MATERIALS AND METHODS

We collected voucher specimens of all species listed herein, between and including 1991 and 2002. Specimens cited belong to the Wilder and McCombs Herbarium, housed at Florida Gulf Coast University (Fort Myers, FL). Species were determined as new to Ohio and/or Cuyahoga

County using Andreas (1989), Braun (1961, 1967), Cooperrider (1982, 1995), Cusick and Silberhorn (1977), Easterly (1964), Fisher (1988), Kartesz and Meacham (1999), Koch (1974), McCance and Burns (1984), Moldenke (1944), Rabeler and Cusick (1994), Raven and Gregory (1972), Schaffner (1932), Vincent and Cusick (1998), Wagner and Beitel (1993), Walters (1995), Weishaupt (1971), and the Ohio Natural Heritage Database. Nomenclature mostly follows Kartesz (1994), but for some taxa synonyms are given that appear in other relevant publications.

Taxa were determined as either native or alien to the northeastern United States based on information from one or more of the following sources: Bailey (1949), Fernald (1950), Gleason and Cronquist (1991), Kartesz and Meacham (1999), Rabeler (1988), Rehder (1940), and Staff of the Liberty Hyde Bailey Hortorium (1976). *Eragrostis tephrosanthos* was difficult to classify as either native or alien. We call it alien, based on Gleason and Cronquist's (1991) characterization of it as "... a weed mainly of trop. N. Amer ..." occurring "... rarely and sporadically with us;" however, Kartesz and Meacham (1999) reported *E. tephrosanthos* in numerous states of the southern U.S.A., fewer states of the northern U.S.A., and in Ontario.

RESULTS

We report 14 new Ohio records of vascular plants: nine species of seven families (*Ageratum houstonianum*, *Calamagrostis epigeios*, *Geum urbanum*, *Hieracium sabaudum*, *Impatiens holstii*, *Juniperus horizontalis*, *Lepidium oblongum*, *Rapistrum rugosum*, *Trifolium fragiferum*) and five hybrids of four families (*Carex debilis* × *C. virescens*, *Chrysanthemum* × *superbum*, *Lolium* × *festucaceum*, *Rumex* × *confusus*, *R. obtusifolius* × *R. patientia*). All taxa were collected within Cuyahoga County except *Calamagrostis epigeios* (Summit Co.) and *Trifolium fragiferum* (Sandusky Co.). *Impatiens holstii* is newly reported for North America (Kartesz and Meacham 1999). Twenty-one species and seven hybrids, representing 15 families of vascular plants, are reported as new to Cuyahoga County (Appendix). Only approximately 37% of the 30 taxa reported here are native to the northeastern United States (Appendix), a result comparable to the approximately 39% of records cited by Wilder and McCombs (2002).

Five newly reported species are cited in the *Rare native Ohio plants 2000–2001 status list* (Ohio Division of Natural Areas and Preserves 2000). These species are listed as endangered (*Carex lucorum*, *Ribes*

missouriense, *Solidago puberula*), threatened (*Panicum philadelphicum*), or added (*C. brevior*; “added” is defined in the Appendix).

DISCUSSION

Various records require explanation. Cooperrider et al. (2001) listed *Juniperus horizontalis* as a deletion from the Ohio flora; thus it is surprising to again report this species from Ohio. The species is both native to the northeastern United States and cultivated (Gleason and Cronquist 1991; Rehder 1940). Our collections are from an ample population growing in a wild region of Shaker Median Park (Beachwood, OH). This region, cleared of vegetation years ago, now exhibits native species and escaped plants of numerous non-native cultivated species (e.g., *Pyracantha coccinea*; Wilder and McCombs 2002); thus, we suspect that our *J. horizontalis* is escaped, rather than native. Anton A. Reznicek (MICH) verified the identity of our specimens and those of many other taxa listed in the Appendix.

Solidago puberula is presently known from one locality in Ohio (Highland Heights, Cuyahoga Co.), where it was found by the senior author (Appendix). The species was first located in Ohio, in Pepper Pike (Cuyahoga Co.), by Ann Malmquist in 1994, but her collection locality was subsequently developed and destroyed (James K. Bissel, CLM, pers. comm.). *Solidago puberula* has been formally reported for Ohio (Cooperrider et al. 2001; Ohio Division of Natural Areas and Preserves 2000); however, no published record exists for the species in Cuyahoga County. It is attributed to the County within the Ohio Natural Heritage Database, but this Database is neither online nor otherwise directly accessible to the public.

Ribes missouriense is both native to Ohio and cultivated (Braun 1961; Rehder 1940). Our material is from a clump of this species growing in woods by West Creek (Parma, OH). We cannot determine whether the clump is indigenous or escaped from cultivation. Our new record from Cuyahoga County represents a substantial range extension within Ohio, because previous reports are from the southwestern extremity of the State. Braun (1961) stated that the general range of this species was to the west of Ohio and that it was known in Ohio from two Hamilton County collections. McCance and Burns (1984) subsequently stated for Ohio that “There is a single population extant in Butler County. A pre-1960 specimen exists from Hamilton County.” Presently, the species is recorded within the Ohio Natural Heritage Database from Brown, Butler, Clermont, and Hamilton Counties (James McCormac, Ohio

Dept. of Natural Resources – Div. of Natural Areas and Preserves, pers. comm.).

Carex lucorum was discovered in Ohio in 1993. Before the present find in Parma (Cuyahoga Co.) it was known solely from the Oak Openings region of Lucas County, where it grew in areas that are regularly burned (Ohio Natural Heritage Database, James McCormac, pers. comm.). *Carex lucorum* has now been documented from five locations within Lucas County (Timothy Walters, Consultant, The Mannik & Smith Group, Maumee, OH, pers. comm.). The species exhibits considerable similarity to *C. pensylvanica* Lam., and these taxa differ from each other primarily in the length of the perigynium beak (Cusick 1992; Voss 1972). Possibly, some previous workers observed *C. lucorum* in Ohio, but misidentified it as *C. pensylvanica*. Before the initial discovery of 1993, Cusick (1992) remarked presciently that the species "... should be sought in Ohio in the Oak Openings and on the Appalachian Plateau." The Parma locality is within the northern margin of the Plateau (Figure 3 in Andreas 1989).

There have been few previous reports for Ohio for certain other species listed here for Cuyahoga County. Cooperrider (1995) stated that *Gaura longiflora* "was collected once, in 1960, as an adventive weed in Lorain County," and that the species is native from Illinois and Iowa south to Texas. Specimens we collected grew on insolated urban land. Koch (1974) listed *Eragrostis tephrosanthos* for Ohio, but specified no county therein. We located a small population of plants on railroad ballast in urban Cleveland.

It is striking that we acquired three *Rumex* hybrids in Cuyahoga County. All three parental species grow there (*R. crispus*, *R. obtusifolius*, *R. patientia*), but *R. patientia* is essentially confined to urban Cleveland. The hybrids occurred either partly or entirely within urban Cleveland. We found Mitchell and Dean (1978) useful for identifying certain of the hybrids.

The present report of *Carex debilis* × *C. virescens* increases to four the number of *Carex* hybrids known from Ohio. Wilder and McCombs (2002) previously reported *C. albicans* var. *albicans* × *C. umbellata*. Cooperrider et al. (2001) cited *C. ×subimpressa* (*C. hyalinolepis* × *C. pellita*) and *C. ×sullivantii* (*C. gracillima* × *C. hirtifolia*).

We recognize *Eragrostis tephrosanthos* herein, rather than the more broadly defined *E. pectinacea*. We cite the narrowly defined species to signify the existence in Cuyahoga County of a morphological variant that would remain unspecified solely by citation of the broadly circumscribed taxon. We do not imply that narrow species circumscriptions are

more valid. Gleason and Cronquist (1991) and Voss (1972) recognized *E. tephrosanthos*, whereas, Kartesz (1994) recognized *E. pectinacea*.

Certain escaped species require comment. *Ageratum houstonianum* and *Impatiens holstii*, found growing on an exposed portion of creek bed (West Creek in Parma), might not permanently survive the harsh winters of Cuyahoga County. Also, *Cotoneaster divaricatus* grows abundantly in Shaker Median Park (Beachwood), within the same wild, insolated terrain containing *Juniperus horizontalis* and other escaped species. In accordance with these observations, Zika (2002) reported 50–200 individuals of *C. divaricatus* naturalized within a one-mile radius of a point within Cotuit, Massachusetts. He characterized the seeds that produced these individuals as apparently bird-sown.

Certain presently reported taxa probably no longer survive at our original collection localities: *Carex brevior*, *Chenopodium simplex*, *Eragrostis tephrosanthos*, *Lolium ×festucaceum*, *Lepidium oblongum*, and *Rapistrum rugosum*. Habitat destruction is largely to blame, including bulldozing and spraying with herbicide. Some taxa, particularly *L. ×festucaceum* and *R. rugosum*, might therefore be extirpated within Ohio and/or Cuyahoga County. Wilder and McCombs (2002) discussed habitat destruction and the probable loss of additional species within Cuyahoga County.

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APPENDIX

SPECIES AND HYBRIDS THAT REPRESENT NEW RECORDS
FOR OHIO AND CUYAHOGA COUNTY, OHIO

Data are presented in the following order after the name of a species or hybrid: relevant synonym(s) (between brackets); designation, if any, in the *Rare native Ohio plants 2000–2001 status list* (Ohio Division of Natural Areas and Preserves 2000); “Added species” signifies “a native Ohio plant species which has recently been added to the Natural Heritage Program rare plant inventory; sufficient information has not yet been obtained to determine the Ohio endangerment status;” habitat(s); the Wilder and McCombs collection number of a representative collection together with the municipality of this collection; any additional municipality(ies) represented by collections in the Wilder and McCombs Herbarium (between parentheses). * = alien to the northeastern United States. SR = state record, species and hybrids newly reported for Ohio; remaining species and hybrids are new solely to Cuyahoga County. Abbreviations represent municipalities: B, Brecksville; Bc, Beachwood; Bk,

Brooklyn; BkH, Brooklyn Heights; BP, Brook Park; BV, Bay Village; C, Cleveland; CH, Cuyahoga Heights; Cl, Clyde; CIH, Cleveland Heights; EC, East Cleveland; GM, Gates Mills; HH, Highland Heights; M, Mayfield; MH, Maple Heights; P, Parma; SaH, Sagamore Hills; St, Strongsville; W, Westlake. A dash between abbreviations signifies collection(s) made by the boundary between municipalities.

PTERIDOPHYTES

LYCOPODIACEAE

Lycopodium × *habereri* House [*Diphasiastrum* × *habereri* (House) Holub; *Lycopodium digitatum* Dill. × *L. tristachyum* Pursh] – Meadow where both parental species occur; 15255, HH.

GYMNOSPERMS

CUPRESSACEAE

Juniperus horizontalis Moench – SR. Probable escape in wild, insolated portion of Shaker Median Park; 14679, Bc.

MONOCOTYLEDONS

CYPERACEAE

Carex brevior (Dewey) Mack. ex Lunell – Added species; insolated land by railroad tracks; 13760, MH.

Carex debilis Michx. × *C. virescens* Muhl. ex Willd. – SR. Disturbed land near trail extending from Oxbow Lane southward to beaver pond, North Chagrin Reservation; 4284, GM-M.

Carex lucorum Willd. ex Link – Endangered; open woodland within State Road Park; 15981, P.

POACEAE

**Calamagrostis epigeios* (L.) Roth – SR. Dense population bordering Hike and Bike Trail, Cuyahoga Valley National Recreation Area; 4805, SaH (Summit Co.).

**Eragrostis tephrosanthos* J. A. Schultes [= *E. pectinacea* (Michx.) Nees ex Steud. var. *miserrima* (E. Fourn.) J. Reeder] – Small population along railroad tracks; 2536, C.

**Lolium* × *festucaceum* Link [= × *Festulolium holmbergii* (Dörfl.) P. Fourn.; *Festuca arundinacea* Schreb. × *Lolium perenne* L.] – SR. Disturbed area within Forest Hill Park; 2639, CIH-EC.

Panicum philadelphicum Bernh. ex Trin. – Threatened; edge of dirt road within Mill Stream Run Reservation (growing together with *Eragrostis frankii* C. A. Mey.); 15169, St.

DICOTYLEDONS

ACERACEAE

**Acer tataricum* L. – Along railroad tracks; 14828, C.

ASTERACEAE

- **Ageratum houstonianum* Mill. – SR. Exposed portion of creek bed within West Creek Preserve; 15120, P.
 **Chrysanthemum* × *superbum* Bergmans ex J. W. Ingram – SR. Insolated, disturbed area within West Creek Preserve; 15045, P.
 **Hieracium sabaudum* L. – SR. Along railroad tracks; meadow within Forest Hill Park; 8469, Bk (C, C-EC, EC, BV-W, MH).
Solidago puberula Nutt. – Endangered; peripheral portion of meadow; 8919, HH.

BALSAMINACEAE

- **Impatiens holstii* Engl. & Warb. – SR. Exposed portion of creek bed within West Creek Preserve; 15119, P.

BRASSICACEAE

- **Iberis umbellata* L. – Exposed portion of creek bed within West Creek Preserve; disturbed land at forest edge; second-growth woodland; 15357, P (C).
 **Lepidium oblongum* Small – SR. On railroad ballast; 6801, C.
 **Rapistrum rugosum* (L.) All. – SR. Railroad ballast; 5276, C.

CARYOPHYLLACEAE

- **Stellaria pallida* (Dumort.) Piré – In lawn; 14630, Bk (C).

CHENOPODIACEAE

- Chenopodium berlandieri* Moq. – On railroad ballast beneath bridge and away from bridge; disturbed, insolated urban land; insolated land along road; dump; 9044, C (CIH-EC, EC).
Chenopodium simplex (Torr.) Raf. [= *C. gigantospermum* Aellen] – Disturbed, insolated land within West Creek Preserve; 15086, P.

FABACEAE

- **Trifolium fragiferum* L. – SR. In lawn on west side of Commodore Perry Service Area, south side of I 90; 16226, Cl (Sandusky Co.).

GROSSULARIACEAE

- Ribes missouriense* Nutt. – Endangered; open woodland within West Creek Preserve; 15955, P.

LAMIACEAE

- **Satureja hortensis* L. – By creek within West Creek Preserve; 15153, P.

ONAGRACEAE

- Gaura longiflora* Spach – Insolated urban land; 15203, BP (C).

POLYGONACEAE

- **Rumex* × *acutus* L. [*R. crispus* L. × *R. obtusifolius* L.] – In field; along path and dirt road; on manure pile; 7724, C (B, CH, HH). A forma with red mature valves also was collected (terminus of a railroad bridge over Cuyahoga River; 13851, BkH).
 **Rumex* × *confusus* Simonk. [*R. crispus* L. × *R. patientia* L.] – SR. Along Riverbed Rd. ("The Flats"); 4359, C.
 **Rumex obtusifolius* L. × *R. patientia* L. – SR. Along Riverbed Rd. ("The Flats"); 4363, C.

ROSACEAE

- **Cotoneaster divaricatus* Rehder & E. H. Wilson – Escape in wild, insolated portion of Shaker Median Park; 14843, Bc.
- **Geum urbanum* L. – SR. Lawn; dry slope along railroad tracks; wooded area of railroad land; 5652, C (CIH).